



Att. Docket No: 402801

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Edward Raymond Dowski, Jr.

Application No.: 09/942,392

Filed: 31 August 2001

Group No.:

2873

Examiner:

Unknown

For: **WAVEFRONT CODING OPTICS**

CERTIFICATE OF MAILING UNDER 37 CFR § 1.8

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FILED UNDER 37 C.F.R. § 1.97(B)

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Pursuant to 37 C.F.R. §§ 1.56, 1.97(b) and 1.98, Applicant hereby submits a Supplemental Information Disclosure Statement Form PTO-1449 (modified) along with copies of all references cited therein.

Applicant submits that the cited references, taken alone or in combination, neither anticipate nor render obvious the present invention. Consideration of the foregoing in relation to this application is respectfully requested.

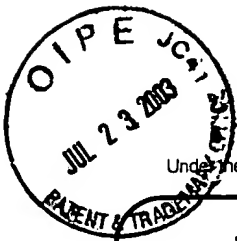
Applicant believes no fees are currently due. However, should any additional fees be required in connection with the filing of this Information Disclosure Statement, the Commissioner is hereby authorized to charge said fees to Deposit Account No. 12-0600.

Respectfully submitted,

Date: July 21, 2003

By

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PTO/SB/21 (05-03)

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**TRANSMITTAL
FORM**

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/942,392	
	Filing Date	31 August 2001	
	First Named Inventor	Edward Raymond Dowski, Jr.	
	Art Unit	2873	
	Examiner Name	Unknown	
Total Number of Pages in This Submission	10 pages + 151 cited references	Attorney Docket Number	402801

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Substitute for Form 1449/PTO; Copies of 151 cited references; Certificate of Mailing, and Return Postcard
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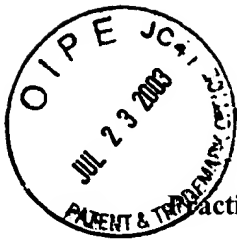
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2873

Practitioner's Docket No. 402919

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Edward Raymond Dowski, Jr.

Application No.: 09/942,392

Filed: 31 August 2001

Group No.: 2873

Examiner: Unknown

For: WAVEFRONT CODING OPTICS

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

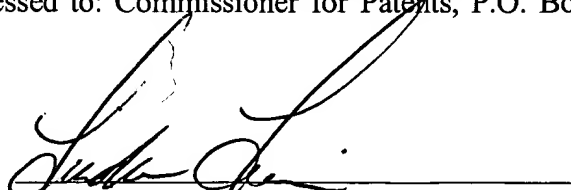
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Date of Deposit: 21 July 2003

I hereby state that the following attached papers:

1. Transmittal Form SB-21 (1 page)
2. Supplemental Information Disclosure Statement Transmittal (1 page)
3. Substitute for Form 1449A/PTO (7 pages)
4. Copies of 151 cited references
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 7

Complete if Known

Application Number	09/942,392
Filing Date	31 August 2001
First Named Inventor	Edward Raymond Dowski, Jr.
Group Art Unit	2873
Examiner Name	Unknown
Attorney Docket Number	402801

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	1	2,959,105		Sayanagi	11-08-1960	
	2	3,054,898		Westover et al.	09-18-1962	
	3	3,305,294		Alvarez	02-21-1967	
	4	3,583,790		Baker	06-08-1971	
	5	3,856,400		Hartmann et al.	12-24-1974	
	6	3,873,958		Whitehouse	03-25-1975	
	7	4,062,619		Hoffman	12-13-1977	
	8	4,082,431		Ward III	04-04-1978	
	9	4,174,885		Joseph et al.	11-20-1979	
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	35	5,102,223		Uesugi et al.	04-07-1992	
	36	5,128,874		Bhanu et al.	07-07-1992	
	37	5,142,413		Kelly	08-25-1992	
	38	5,165,063		Strater et al.	11-17-1992	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known

Application Number	09/942,392
Filing Date	31 August 2001
First Named Inventor	Edward Raymond Dowski, Jr.
Group Art Unit	2873
Examiner Name	Unknown
Attorney Docket Number	402801

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	39	5,193,124		Subbarao	03-09-1993	
	40	5,243,351		Rafanelli et al.	09-07-1993	
	41	5,248,876		Kerstens et al.	09-28-1993	
	42	5,270,825		Takasugi et al.	12-14-1993	
	43	5,270,861		Estelle	12-14-1993	
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	45	5,280,388		Okayama	01-18-1994	
	46	5,299,275		Jackson et al.	03-29-1994	
	47	5,301,241		Kirk	04-05-1994	
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	50	5,337,181		Kelly	08-09-1994	
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	55	5,465,147		Swanson	11-07-1995	
	56	5,473,473		Estelle et al.	12-05-1995	
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Application Number	09/942,392
Filing Date	31 August 2001
First Named Inventor	Edward Raymond Dowski, Jr.
Group Art Unit	2873
Examiner Name	Unknown
Attorney Docket Number	402801

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	77	6,172,723		Inoue et al.	01-09-2001	
	78	6,172,799		Raj	01-09-2001	
	79	6,208,451		Itoh	03-27-2001	
	80	6,218,679		Takahara et al.	04-17-2001	
	81	6,219,113		Takahara	04-17-2001	
	82	6,248,988		Krantz	06-19-2001	
	83	5,756,981		Roustaei et al.	05-26-1998	
	84	5,166,818		Chase et al.	11-24-1992	
	85	5,218,471		Swanson et al.	06-08-1993	
	86	4,804,249		Reynolds et al.	02-14-1989	
	87	3,614,310		Korpel	10-19-1971	
	88	4,655,565		Freeman	04-07-1987	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ₆
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	1	EPO	0759573 A2		Eastman Kodak Company	02-26-1997		
	2	EPO	0531926 B1		Matsushita Electric Industrial Co., Ltd.	3-17-1993		
	3	EPO	0981245 A2		Canon Kabushiki Kaisha	2-23-2000		
	4	EPO	0618473 A2		Kuraray Co., Ltd.	10-5-1994		
	5	EPO	0584769 B1		Matsushita Electric Industrial Co., Ltd.	3-2-1994		
	6	EPO	0791846 A2		Canon Kabushiki Kaisha	8-27-1997		
	7	UK	2278750 A		Motion Media Technology Limited	12-7-1994		
	8	JP	2000-98301 A		Olympus Optical Co.	04-07-2000		
	9	WO	99/57599		University Technology Corporation	11-11-1999		
	10	WO	00/52516		Boston Innovative Optics	09-08-2000		
	11	EPO	0742466 A		Johnson & Johnson Vision	11-13-1996		

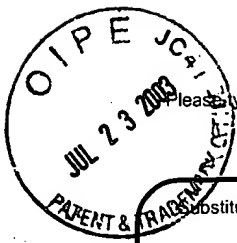
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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 7

Complete if Known

Application Number	09/942,392
Filing Date	31 August 2001
First Named Inventor	Edward Raymond Dowski, Jr.
Group Art Unit	2873
Examiner Name	Unknown
Attorney Docket Number	402801

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/	1	J. OJEDA-CASTANEDA, L. R. BERRIEL-VALDOS, and E. MONTES, "Spatial filter for increasing the depth of focus", Optics Letters, Vol. 10, No. 11, p520-522, November, 1985	
/	2	J. OJEDA-CASTANEDA, and A. DIAZ, "High focal depth by quasibifocus", Vol. 27, No. 20, p4163-4165, October 15, 1988	
/	3	W. CHI and N. GEORGE, "Electronic imaging using a logarithmic asphere", Optics Letters, Vol. 26, No., 12, p 875-877, June 15, 2001	
/	4	J. OJEDA-CASTANEDA, E. TEPICHIN, and A. PONS, "Apodization of annular apertures: Strehl ratio", Applied Optics, Vol. 27, No. 24, p 5140-5145, December 15, 1988	
/	5	D. L. MARKS, R. A. STACK, D. J. BRADY, and J. VAN DER GRACHT, "Three-dimensional tomography using a cubic-phase plate extended depth-of-field system", Optics Letters, Vol. 24, No. 4, p 253-255, February 15, 1999	
/	6	S. C. TUCKER, W. T. CATHEY, and E. R. DOWSKI, Jr, "Extended depth of field and aberration control for inexpensive digital microscope systems", Optics Express, Vol. 4, No. 11, p467-474, May 24, 1999	
/	7	H. BARTELT, J. OJEDA-CASTANEDA, and E. E. SICRE, "Misfocus tolerance seen by simple inspection of the ambiguity function", Applied Optics, Vol 23, No. 16, p 2693-2696, August 15, 1984	
/	8	J. OJEDA-CASTANEDA, L. R. BERRIEL-VALDOS, and E. MONTES, "Ambiguity function as a design tool for high focal depth", Applied Optics, Vol 27, No. 4, p 790-795, February 15, 1988	
/	9	J. OJEDA-CASTANEDA, P. ANDRES, and A. DIAZ, "Annular apodizers for low sensitivity to defocus and to spherical aberration", Optics Letters, Vol. 11, No. 8, p 487-489, August, 1986	
/	10	J. OJEDA-CASTANEDA, E. TEPICHIN, and A. DIAZ, "Arbitrarily high focal depth with a quasioptimum real and positive transmittance apodizer", Applied Optics, Vol 28, No. 13, p 2666-2670, July 1, 1989	
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/	13	W. T. WELFORD, "Use of annular apertures to increase focal depth", Journal of the Optical Society of America, Vol. 50, No. 8, p 749-753, August, 1960	
/	14	C. VARAMIT, and G. INDEBETOUW, "Imaging properties of defocused partitioned pupils", J. Opt. Soc. Am. A, Vol. 2, No. 6, p 799-802, June 1985	
/	15	E. R. DOWSKI Jr., and W. T. CATHEY, "Single lens single-image incoherent passive-ranging systems", Applied Optics, Vol 33, No. 29, p 6762-6773, October 10, 1994	

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Examiner Signature		Date Considered	
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Sheet 5 of 7

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Application Number	09/942,392
Filing Date	31 August 2001
First Named Inventor	Edward Raymond Dowski, Jr.
Group Art Unit	2873
Examiner Name	Unknown
Attorney Docket Number	402801

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/	16	W. T. CATHEY, B. R. FRIEDEN, W. T. RHODES, and C. K. RUSHFORTH, "Image gathering and processing for enhanced resolution", J. Opt. Soc. Am. A, Vol. 1, No. 3, p 241-250, March 1984	
/	17	J. VAN DER GRACHT, E. R. DOWSKI Jr., M. G. TAYLOR, and D. M. DEEVER, "Broadband behavior of an optical-digital focus-invariant system", Optics Letters, Vol. 21, No. 13, p 919-921, July 1, 1996	
/	18	G. HAUSLER, "A method to increase the depth of focus by two step image processing", Optical Communications, Vol. 6, No. 1, p 38-42, September, 1972	
/	19	C. J COGSWELL, N. I. SMITH, K. G. LARKIN, and P. HARIHARAN, "Quantitative DIC microscopy using a geometric phase shifter", SPIE, Vol. 2984, p72-81, 1997	
/	20	D. KERMISCH, "Partially coherent image processing by laser scanning", Journal of the Optical Society of America, Vol. 65, No. 8, p 887-891, August, 1975	
/	21	R. J. PIEPER and A. KORPEL, "Image processing for extended depth of field", Applied Optics, Vol 22, No. 10, p 1449-1453, May 15, 1983	
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Application Number	09/942,392
Filing Date	31 August 2001
First Named Inventor	Edward Raymond Dowski, Jr.
Group Art Unit	2873
Examiner Name	Unknown
Attorney Docket Number	402801

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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First Named Inventor	Edward Raymond Dowski, Jr.
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